



**EIE**

**Atmospheric Distillation Tester**

**EIE-DI-03**

# Atmospheric Distillation Tester

**With Dry Point Detection**



- ASTM D86, ASTM D850, EN ISO 3405, IP 123 and 195, DIN 51 751, NF M07-002, GB/T 6536, GB/T 3146.1, ASTM D1078
- One-button Start. Automatically completes sample distillation testing, saves, prints, or uploads the measurement result data.
- It can test different types of samples such as gasoline, kerosene, diesel, organic solvents, and benzene products.
- The high-efficiency compressor cold circulation system has a fast cooling speed, shortens the interval of measurement, and improves its efficiency.

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## Introduction

The Atmospheric Distillation Tester, developed by Canada Etech International Enterprises Inc. (EIE), uses the most advanced international design concepts and test methods in the world, which improves the automation degree of the distillation tester, guarantees the measurement accuracy, and minimized the adverse consequences caused by operator errors.

## Technical Features

1. Using a 32-bit high-speed ARM processor and the embedded real-time operating system ensures that the instrument's hardware control part has better stability and real-time performance.
2. It adopts embedded micro industrial computer, embedded WES7 control system, and adopts professional control software for instrument control and data analysis.
3. The high-efficiency compressor cold circulation system has a fast cooling speed, shortens the interval of measurement, and improves its efficiency.
4. The analysis system comes with various editable programs, no need to manually set the analysis conditions. Users can choose according to actual needs when measuring and analyzing.
5. The flask is fixed with a fast positioning function to eliminate uncertain factors caused by positioning errors.
6. The optimized fuzzy PID control algorithm is used to ensure that the distillation rate of different tested samples is better than standard requirements
7. It has One-button Start Function, which automatically completes sample distillation testing, saves, prints, or uploads the measurement result data.
8. It is equipped with a 10.4-inch TFT high-resolution screen and user-friendly UI.
9. The software implements power-on self-check, remote monitoring, fault prompt, fault diagnosis, and online software upgrades(connected to the internet).
10. The measurement results can be printed out or uploaded to the LIMS system.
11. Automatic fire extinguishing system, dual-flame detection, automatic fire extinguishing function (need to connect nitrogen or carbon dioxide gas source, pressure 700kPa  $\pm$  50kPa)
12. Built-in air pressure sensor, 10 - 130kPa automatic detection, resolution 0.01KPa, accuracy  $\pm$  0.1KPa, automatic compensation, and the result is automatically converted to the standard pressure value.
13. The test conditions are automatically checked. The main check items are the steam temperature sensor, condenser cleaning, orifice plate, graduated cylinder, and flask. Avoid the deviation of the measurement results caused by human misoperation or instrument failure factors.



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# Atomospheric Distillation Tester EIE-DI-03

Safety



Flask positioning system



Easy operation

Softwar can remotely troubleshooting



Unknown sample test

Automatic residual and loss calculation



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## SPECIFICATIONS

Standards	
ASTM D86, ASTM D850, EN ISO 3405, IP 123 and 195, DIN 51 751, NF M07-002, GB/T 6536, GB/T 3146.1, ASTM D1078	
Technical Details	
Steam temperature	Range: 0 - 450°C
	Accuracy: $\pm 0.1^{\circ}\text{C}$
Sample Volume	The dual optical measurement system
	Range: 0 - 103%
	Resolution: 0.01 ml
	Accuracy: $\pm 0.1$ ml
Ambient air pressure	Built-in pressure sensor. The result is automatically converted to the value under standard pressure.
	Range: 1 - 130 kPa
	Resolution: 0.01 kPa
	Accuracy: $\pm 0.1$ kPa
Condenser temperature	It can ensure the stability of the oil components during the experiment.
	Range: -5 - 65°C
	Accuracy: $\pm 0.1^{\circ}\text{C}$
Recovery chamber temperature	Use anti-corrosion materials, automatic temperature control.
	Range: 0 - 60°C
	Accuracy: $\pm 0.1^{\circ}\text{C}$
Distillation rate	Range: 2 - 10 ml/min
	Resolution: 0.1 ml/min
Safety	Built-in 2 units of flame detectors, built-in fire extinguisher (need external air source, pressure $700 \pm 50$ kPa)
Results storage	1000 result data or expand storage capacity as needed.
Network method	RJ45 Ethernet (optional WIFI), can connect to LIMS, LAN, Internet
Printout	connect to an external printer by USB
Data output	USB x 2, RJ45 Ethernet (optional WIFI), RS232
Power supply	AC 110 - 230V 50/60 Hz
Total power	< 1200W
Operating Environment	
Operating temperature	5 - 35 °C
Storage temperature	-10 - 55 °C
Relative humidity	< 75%
Operating place	Indoor